

Carbon Monoxide CiticeL[®] Specification

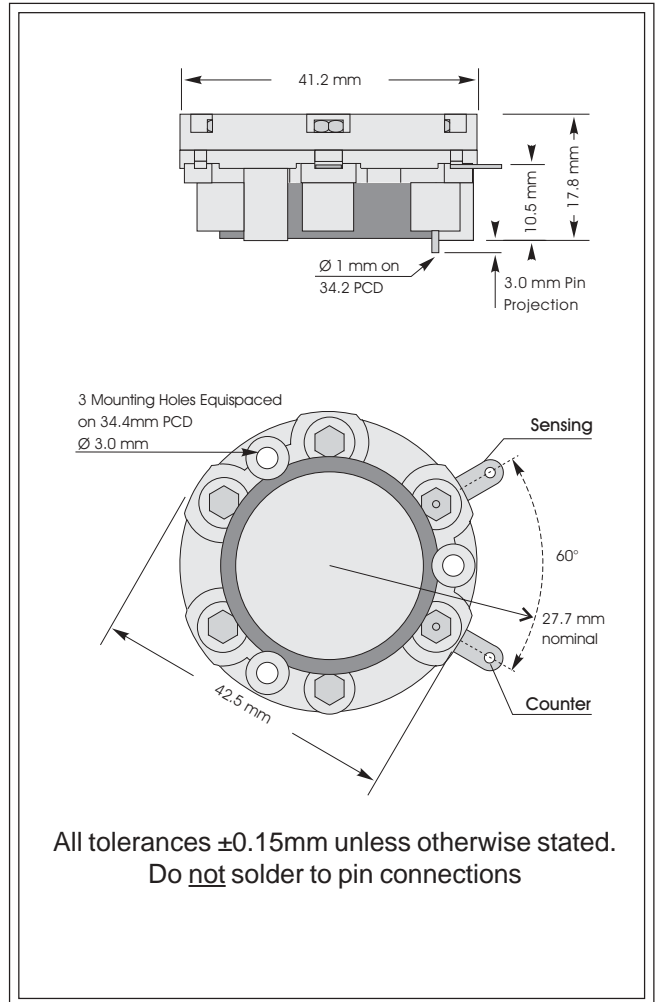


2E/F CiTiceL[®]

Performance Characteristics

Nominal Range	0-200ppm
Maximum Overload	500ppm
Expected Operating Life	Two years in air
Output Signal	0.10 ± 0.02 µA/ppm
Inboard Filter	To remove SO ₂ and H ₂ S
Resolution	1ppm
Temperature Range	-20°C to +50°C
Pressure Range	Atmospheric ± 10%
Pressure Coefficient	No data
T₉₀ Response Time	≤40 seconds
Relative Humidity Range	15 to 90% non-condensing
Typical Baseline Range (pure air)	-1 to +3ppm equivalent
Maximum Zero Shift (+20°C to +40°C)	9ppm equivalent
Long Term Output Drift	<5% signal loss/year
Recommended Load Resistor	10 Ω
Bias Voltage	Not required
Repeatability	1% of signal
Output Linearity	Linear

N.B. All performance data is based on conditions at 20°C, 50%RH, and 1013mBar



Physical Characteristics

Weight	22g
Position Sensitivity	None
Storage Life	Six months in CTL container
Recommended Storage Temperature	0-20°C
Warranty Period	12 months from date of despatch



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Distributed by:

Shawcity Ltd

91-92 Shrivenham Hundred Business Park

Watchfield, Oxfordshire, SN6 8TY

Tel: 01793 780622

Email: sensororders@shawcity.co.uk

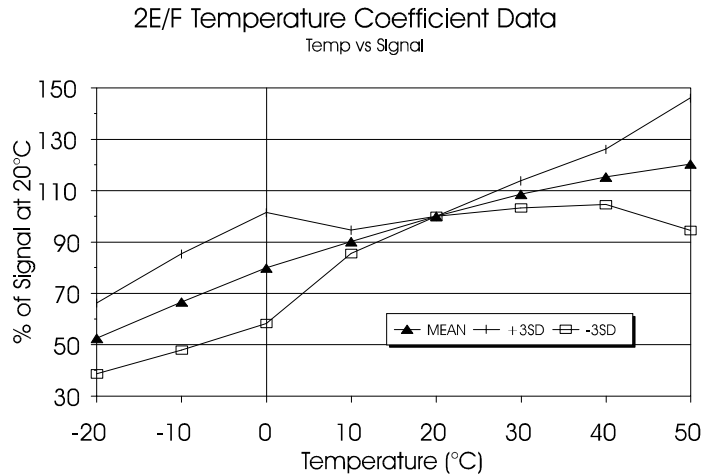
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Temperature Dependence

The output of a CiTiceL can vary with temperature. The graph here shows the variation in output with temperature for 2E/F CiTiceLs based on a sample of about 16 sensors. The results are shown in the graph as a mean for the batch, and expressed as a percentage of the signal at 20°C.

From a statistical viewpoint, for a sample of this size, the range in values observed for all sensors of this type will fall within a range three times the standard deviation above or below the mean. Assuming therefore this sample is typical, then the temperature behaviour of all 2E/F CiTiceLs will fall in the band +3SD to -3SD.



Cross-sensitivity Data

CiTiceLs may exhibit a response to certain gases in a sample other than the target gas. 2E/F CiTiceLs have been tested with a number of commonly cross-interfering gases and the results are given below. The table shows the typical response to be expected from a sensor when exposed to a given test gas concentration (relevant to safety, e.g. TLV levels).

<u>Gas</u>	<u>Conc.</u>	<u>2E/F</u>	<u>Gas</u>	<u>Conc.</u>	<u>2E/F</u>
Hydrogen sulphide:	15ppm	<1ppm	Hydrogen:	100ppm	<20ppm
Sulphur dioxide:	5ppm	0ppm	Hydrogen cyanide:	10ppm	0ppm
Nitric oxide:	35ppm	<±2ppm	Hydrogen chloride:	5ppm	0ppm
Nitrogen dioxide:	500ppm	5<x\$<25ppm	Ethylene:	100ppm	<50ppm
Chlorine:	1ppm	0ppm			

For details of other possible cross-interfering gases contact City Technology.

Ordering Information

The 2E/F Carbon Monoxide CiTiceL is supplied with side tags and tin-plated PCB pins.

Type 2E/F:- With side tag and PCB pin connections - 2E/F

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Performance characteristics on this data sheet outline the performance of newly supplied sensors. Output signal can drift below the lower limit over time.